

I claim:

~~1. A process for producing a composite structural element,~~

which comprises:

providing a thin-section wall part;

placing the thin-section wall part into a mold;

applying reinforcing elements to the thin-section wall part;

placing a counter-mold onto the mold for forming a mold cavity;

introducing a binder having a foaming agent into said mold cavity via one of injection cannulas and nozzles, after a set time delay a foaming of the binder occurring for encapsulating the reinforcing elements on all sides.

2. The process according to claim 1, which comprises introducing the binder having the foaming agent into an open mold.

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3. The process according to claim 1, which comprises using the binder having the foaming agent with a set time delay of less than 5 seconds for foaming the binder.
4. The process according to claim 1, which comprises priming the thin-section wall part on a foam application side to improve adhesion before applying the binder.
5. The process according to claim 1, which comprises backing the thin-section wall part with a hard shell formed with reinforcing elements by one of compression molding and injection molding before a formation of the mold cavity, and applying a second hard shell subsequently to the free side of the molding.
6. The process according to claim 5, which comprises molding on transverse cross-pieces to the hard shell during the application of the hard shell.
7. The process according to claim 5, which comprises forming a recycled core from one of a foam and a comparable light weight material and placing the recycled core in the reinforcing elements before the binder is injected.

~~8. A process for producing a composite structural element,~~

which comprises:

~~producing moldings formed with reinforcing elements and a
binder by foaming of the binder for encapsulating the
reinforcing elements;~~

~~producing hard shells formed with the reinforcing elements
and the binder by foaming of the binder for encapsulating the
reinforcing elements; and~~

~~providing a thin-section wall part, and bonding adhesively
the moldings and the hard shells to the thin-section wall
part for forming a composite element.~~

9. The process according to claim 8, which comprises
producing the moldings with recycled cores.

10. The process according to claim 8, which comprises
producing the hard shells with transverse cross-pieces.